

AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

1. (Previously Presented) An LED lamp comprising:
an LED chip;
a reflector with a reflective surface that reflects the emission of the LED chip at least partially; and
a substantially hemispherical light-transmissive member that covers the LED chip,
wherein the surface of the substantially hemispherical light-transmissive member includes an upper surface portion located over the LED chip and a side surface portion located below the upper surface portion, at least a part of the side surface portion having a lower transmittance than the upper surface portion, and
wherein the upper surface portion of the substantially hemispherical light-transmissive member is arranged so as to define an angle of at most 15 degrees with respect to an optical axis that perpendicularly extends through the LED chip.
2. (Previously Presented) The LED lamp of claim 1, wherein the substantially hemispherical light-transmissive member also covers at least the reflective surface of the reflector.
3. (Previously Presented) The LED lamp of claim 1 or 2, further comprising a wavelength converting portion, which covers the LED chip,
wherein the wavelength converting portion includes: a phosphor for converting the emission of the LED chip into light that has a longer wavelength than the emission; and a resin in

which the phosphor is dispersed, the wavelength converting portion being covered with the substantially hemispherical light-transmissive member.

4. (Previously Presented) The LED lamp of claim 1, wherein at least the part of the side surface portion of the substantially hemispherical light-transmissive member has been processed so as to have the lower transmittance than the upper surface portion by subjecting the substantially hemispherical light-transmissive member to a surface treatment.

5. (Previously Presented) The LED lamp of claim 1, wherein at least the part of the side surface portion of the substantially hemispherical light-transmissive member has a transmittance of substantially zero.

6. (Previously Presented) The LED lamp of claim 1, wherein at least the part of the side surface portion of the substantially hemispherical light-transmissive member is arranged so as to define an angle of approximately 45 degrees with respect to an optical axis that extends through the LED chip.

7. (Cancelled)

8. (Previously Presented) The LED lamp of claim 1, wherein the upper surface portion of the substantially hemispherical light-transmissive member is substantially planar.

9. (Previously Presented) The LED lamp of claim 1, wherein all of the side surface

portion of the substantially hemispherical light-transmissive member has lower transmittance than the upper surface portion.

10. (Previously Presented) The LED lamp of claim 1, wherein the upper surface portion of the substantially hemispherical light-transmissive member and/or the reflective surface has a diffusing surface.

11. (Previously Presented) The LED lamp of claim 3, wherein there is a gap between the side surface of the wavelength converting portion and the reflective surface of the reflector, and wherein the gap is filled with the substantially hemispherical light-transmissive member.

12. (Previously Presented) An LED lamp comprising:
a substrate;
an array of LED chips that are arranged two-dimensionally on the substrate;
a reflector with a plurality of reflective surfaces, each of which reflects the emission of an associated one of the LED chips at least partially; and
a plurality of substantially hemispherical light-transmissive members, each of which covers an associated one of the LED chips,

wherein some of the substantially hemispherical light-transmissive members are located in the outermost part of the array of LED chips, and the surface of at least each of those substantially hemispherical light-transmissive members includes an upper surface portion located over an associated one of the LED chips and a side surface portion located below the upper surface portion, at least a part of the side surface portion having a lower transmittance than the upper surface

portion, and

wherein the upper surface portion of the at least one of substantially hemispherical light-transmissive members is arranged so as to define an angle of at most 15 degrees with respect to an optical axis that perpendicularly extends through the LED chip.

13. (Previously Presented) The LED lamp of claim 12, wherein the substantially hemispherical light-transmissive members are combined together on the surface of the reflector.

14. (Previously Presented) The LED lamp of claim 1, wherein between the part of the side surface portion of the substantially hemispherical light-transmissive member, having the lower transmittance than the upper surface portion, and the bottom of the side surface portion, there is a portion having a higher transmittance than the part.

15. (New) An LED lamp comprising:

an LED chip; and

a light-transmissive member that covers the LED chip,

wherein the surface of the light-transmissive member includes an upper surface portion located over the LED chip and a side surface portion located below the upper surface portion, at least a part of the side surface portion having a lower transmittance than the upper surface portion, and

wherein the upper surface portion of the light-transmissive member is arranged so as to define an angle of at most 15 degrees with respect to an optical axis that perpendicularly extends through the LED chip.

16. (New) The LED lamp of claim 15, wherein the light-transmissive member has a substantially hemispherical shape.

17. (New) An LED lamp comprising:
a substrate;
an array of LED chips that are arranged two-dimensionally on the substrate; and
a plurality of light-transmissive members, each of which covers an associated one of the LED chips,
wherein some of the light-transmissive members are located in the outermost part of the array of LED chips, and the surface of at least each of those light-transmissive members includes an upper surface portion located over an associated one of the LED chips and a side surface portion located below the upper surface portion, at least a part of the side surface portion having a lower transmittance than the upper surface portion, and
wherein the upper surface portion of the light-transmissive member is arranged so as to define an angle of at most 15 degrees with respect to an optical axis that perpendicularly extends through the LED chip.

18. (New) The LED lamp of claim 17, wherein each of the light-transmissive members has substantially hemispherical shape.